



PATENT APPLICATION

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re application of

Docket No: Q62474

Carlos PEDRIDO, et al.

Appln. No.: 09/745,414

Group Art Unit: 1731

Confirmation No.: 9890

Examiner: John M. HOFFMAN

Filed: December 26, 2000

For: PREFORM INLET ARRANGEMENT FOR AN OPTICAL FIBER DRAWING
FURNACE, A FURNACE PROVIDED WITH THAT KIND OF INLET
ARRANGEMENT, AND A PREFORM EQUIPPED TO CO-OPERATE WITH THAT
INLET ARRANGEMENT

SUBMISSION OF APPELLANT'S BRIEF ON APPEAL

MAIL STOP APPEAL BRIEF - PATENTS

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Submitted herewith please find an original and two copies of Appellant's Brief on Appeal. A check for the statutory fee of \$330.00 is attached. The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account. A duplicate copy of this paper is attached.

Respectfully submitted,

Raja Saliba
Registration No. 43,078

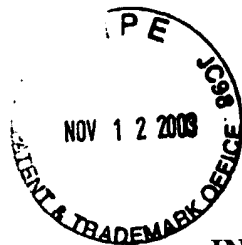
SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE

23373

CUSTOMER NUMBER

Date: November 12, 2003



PATENT APPLICATION

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re application of Docket No: Q62474

Carlos PEDRIDO, et al.

Appln. No.: 09/745,414 Group Art Unit: 1731

Confirmation No.: 9890 Examiner: John M. HOFFMAN

Filed: December 26, 2000

For: PREFORM INLET ARRANGEMENT FOR AN OPTICAL FIBER DRAWING
 FURNACE, A FURNACE PROVIDED WITH THAT KIND OF INLET
 ARRANGEMENT, AND A PREFORM EQUIPPED TO CO-OPERATE WITH THAT
 INLET ARRANGEMENT

APPELLANTS' BRIEF ON APPEAL UNDER 37 C.F.R. § 1.192

MAIL STOP APPEAL BRIEF - PATENTS

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

In accordance with the provisions of 37 C.F.R. § 1.192, Appellants submit the following:

I. REAL PARTY IN INTEREST

The real party in interest is the Assignee, ALCATEL. An Assignment was filed in this application and recorded at reel 011674, frame 0082.

II. RELATED APPEALS AND INTERFERENCES

To the best of the undersigned's knowledge, there are no related appeals or interferences.

III. STATUS OF CLAIMS

This application was originally filed with claims 1-7. On February 25, 2003, claims 1 and 2 were amended and new claims 8-15 were added. Thus claims 1-15 are currently pending.

APPELLANTS' BRIEF ON APPEAL
UNDER 37 C.F.R. § 1.192
U.S. Appln. No.: 09/745,414

Claims 1-9 were allowed in an Office Action dated March 12, 2003 (Paper No. 10). Claims 10 through 15 were rejected and are under appeal.

Claim 10 stands finally rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Nicholson et al. (U.S. Patent No. 5,713,979).

Claims 11-15 stand finally rejected under 35 U.S.C. § 112, first paragraph as allegedly containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the art that the inventors, at the time the application was filed, had possession of the claimed invention.

IV. STATUS OF AMENDMENTS

An Amendment Under 37 C.F.R. § 1.116 was filed on July 3, 2003. The Amendment made a minor change to claim 11 to address the 35 U.S.C. § 112 rejection. However, in the Advisory Action dated July 16, 2003, the Examiner refused to enter the proposed amendment because it allegedly raised new issues that would require further consideration and/or search and it was not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal. As discussed below Applicants believe that the Examiner's refusal to enter the Amendment was improper.

V. SUMMARY OF THE INVENTION

The claimed invention relates to a preform inlet arrangement for an optical fiber drawing furnace and to a furnace with that kind of arrangement. Specification, p. 1.

The production of optical fibers by drawing a heated preform in a furnace necessarily involves phases during which production is stopped for one preform to be replaced by another.

:

APPELLANTS' BRIEF ON APPEAL
UNDER 37 C.F.R. § 1.192
U.S. Appln. No.: 09/745,414

During the fiber drawing phase, the furnace is filled with inert gas. However, when one fiber is replaced with another, the surrounding air can infiltrate the furnace, which can cause damage to the graphite elements in the furnace. *Id.*

The claimed invention prevents air from infiltrating the furnace by providing an airlock 13 which closes and seals the top of the furnace in the absence of a preform and during preform insertion or removal and preferably maintains positive internal pressure at the furnace inlet. *Id.*, p. 5.

Figures 2, 3 and 4 show an embodiment of a drawing furnace equipped with this kind of airlock, with a vertical preform 3' shown in a different position in each of the figures. The figures show drawing furnace 1' with an enclosure 4' and cladding 5'. Injector 6' is mounted above the enclosure 4' at the level of the preform inlet opening to the enclosure, which it surrounds. *Id.*, p. 5-6.

In a preferred embodiment, injector 6' includes vents 14 and 15 inclined towards the preform and some of which point downwards towards the furnace and others of which point upwards. *Id.*, p. 6.

A closure member 16 is positioned above injector 6' and closes and seals the top of the furnace in the absence of a preform. It has two moving closure parts which cover the axial opening for the preform at the center of injector 6' when they are moved into contact with each other. The opening in closure member 16 adapted to allow downward movement of a preform into the furnace is formed by moving apart its two moving closure parts. This is effected by moving both parts simultaneously, for example, and employs displacement means of the usual

APPELLANTS' BRIEF ON APPEAL
UNDER 37 C.F.R. § 1.192
U.S. Appln. No.: 09/745,414

kind; the same applies to moving the moving parts towards each other on closing. The displacement means, which are not shown here, are of the mechanical, electrical, pneumatic or hydraulic type, for example. *Id.*, p. 5.

An airlock chamber is provided above closure member 16 and is defined in the longitudinal direction by two stages of seals 17A and 17B through which the preform body slides when it moves vertically. The seals are stacked cylindrical graphite seals and are held by seal supports 18A and 18B. The seal supports are fastened to a support structure, not shown, of the preform inlet arrangement that they form in conjunction with the seals, the closure member and the injector in this embodiment. The seals 17A, 17B are also cooled, for example by conduction, to prevent premature deterioration. *Id.*

The two stages of seals are separated by a distance chosen so that the airlock function provided by seals 17A and 17B in conjunction with closure member 16 is always fulfilled. This function involves the participation of at least one of the stages of seals as soon as a preform is inserted into the inlet arrangement of which the seals form part and for as long as the length of the preform body is greater than or at least equal to a maximum drawing limit for the preform corresponding to a particular minimum length "l_{min}." In this embodiment, a connecting sleeve 19 of particular length is placed between the seal supports 18A and 18B. The length of the sleeve depends on the minimum preform body length. Therefore, in practice on the drawing end cone that remains at the drawing end after the maximum processing of a preform in the drawing furnace. *Id.*, p. 6-7.

VI. ISSUES

The issues on appeal are:

(1) whether claim 10 was improperly finally rejected under 35 U.S.C. § 102(b) as being anticipated by Nicholson et al. (U.S. Patent No. 5,713,979); and

(2) whether claims 11-15 were improperly finally rejected under 35 U.S.C. § 112, first paragraph.

VII. GROUPING OF CLAIMS

For purposes of this appeal only the claims are grouped as follows:

With respect to the rejection under 35 U.S.C. §102(b), claim 10 stands alone.

With respect to the rejections under 35 U.S.C. §112, 1st paragraph, claims 11-15 stand and fall together.

VIII. ARGUMENTS

Rejection of Claim 10

Appellants respectfully request the members of the Board to reverse the aforementioned rejection under 35 U.S.C. § 102(a) because the cited reference fails to disclose or suggest all of the claim limitations.

In rejecting claim 10 in view of Nicholson, the Examiner asserts that:

The invention is shown on figure 1. Everything above (and including feature 21) comprises the "arrangement". The top of 8 is the inlet. The bottom of 21 is the outlet. The first conveying path is the path from the inlet to the outlet. Feature 8 has the seal (col. 8, line 10). 11 and/or 10 comprise the closure member. The injector is discussed as per the paragraph spanning cols. 8-9. It is inherent that some injector is needed to introduce the process gas into furnace B.

Office Action at pages 2 and 3. In the Advisory Action, the Examiner added that:

APPELLANTS' BRIEF ON APPEAL
UNDER 37 C.F.R. § 1.192
U.S. Appln. No.: 09/745,414

The reference indicates that other arrangements are “clearly” possible. This indicates that one of ordinary skill would “clearly” know of other arrangements. The clearest mode of introducing “inert and/or process gas into furnace B” is to have something that feeds directly into furnace B. Nicholson discloses that 25 is a representation of just one of the possibilities. Furthermore, this pipe would be for introducing gas into “C” or into ‘C and B.’ This does not cover the case where the means just introduces gas into B – which Nicholson explicitly provides for by indicating B “or” C (see the “and/or” of col. 8, line 64). The most clear way would be the equivalent structure of 25: a pipe that feeds directly into B. As to the argument that the invention is for drawing a fiber – such is an intended use limitation and imparts substantially no structural limitations onto the claim. There is no indication as to why Nicholson’s arrangement can’t be used to draw fibers.

Advisory Action at page 2. Applicants respectfully disagree.

Claim 10 requires an inlet arrangement that includes the following elements in a downstream sequence:

- a first seal;
- a closure member located downstream of the inlet and between the first seal and the outlet, the closure member selectively moveable between a closed position that closes and seals the first conveying path and an opened position that opens and unseals the first conveying path; and
- an injector located downstream of the closure member and between the closure member and the outlet

At a minimum, Nicholson et al. does not teach or suggest an inlet arrangement which includes the first seal, a closure member and an injector, with the first seal and the closure member disposed above the injector.

APPELLANTS' BRIEF ON APPEAL
UNDER 37 C.F.R. § 1.192
U.S. Appln. No.: 09/745,414

The Examiner takes the position that Nicholson et al. *inherently* discloses an injector “as per the paragraph spanning cols. 8-9,” because “it is inherent that some injector is needed to introduce the process gas into furnace B.” Office Action at pages 2-3. Nicholson et al. states:

Means may be provided to introduce inert and/or process gas into furnace B, and/or to chamber C, or alternatively to connect these components to the vacuum system. ***These possibilities are represented schematically in FIG. 1 by a single inlet/exit pipe 25, fitted with a valve 26, but alternative pipework arrangements, not shown, are clearly possible.*** Appropriate water-cooling of chamber C is provided, for example by a cooling pipe 27.

Nicholson et al. at column 8, line 66 to column 9, line 6 (emphasis added).

Even if the Examiner now takes the position that Nicholson et al. discloses an injector downstream of the closure member, it is clear that such an alleged injector is not disclosed as being part of the *inlet arrangement* as required by claim 10. Rather, as quoted above, Nicholson et al. *explicitly* discloses that the inlet/exit pipe 25 is at the downstream end of the Chamber C, and therefore, not part of the alleged inlet arrangement. There is no teaching or suggestion to include such an inlet/exit pipe *as part of an inlet arrangement*, which the Examiner alleges to be everything upstream of metal flange 21. While the reference states that “alternative pipework arrangements, not shown, are clearly possible,” it give absolutely no guidance where and how to include the alternative arrangement, and is, therefore, no more than an unguided invitation to experiment. Indeed, to the extent that the reference discloses the single inlet/exit pipe 25, fitted with a valve 26, at the *end* of chamber C so as not to interrupt the insulation and uniformity of this chamber, one skilled in the art would likely be motivated to maintain this arrangement or a

APPELLANTS' BRIEF ON APPEAL
UNDER 37 C.F.R. § 1.192
U.S. Appln. No.: 09/745,414

substantially similar arrangement. Therefore, Nicholson et al. cannot be relied upon to anticipate the invention recited in claim 10.

Furthermore, the present invention as recited in claim 10 is for “drawing a fiber,” whereas Nicholson et al. deals mainly with sintering a preform (see abstract and column 10, line 20, and titles of examples 1 to 4). The Examiner asserts that there is no indication as to why Nicholson’s arrangement can’t be used to draw fibers. Applicants respectfully disagree. In fact, none of the embodiments disclose furnaces that have openings from which a drawn fiber could exit.

Rejection of Claims 11-15

Appellants respectfully request the members of the Board to reverse the aforementioned rejections under 35 U.S.C. § 112, 1st paragraph because subject matter of the claims are described in the specification in such a way as to reasonably convey to one skilled in the art that the inventor, at the time the application was filed, had possession of the claimed invention.

In rejecting claims 11-15 the Examiner asserts that:

Claim 11 contains the limitation of “further conveying the preform through the furnace” (4th to last line). Applicant’s response does not give any indication of where there is any support for the limitation. Examiner read through the specification and could not find any support. The only possible support would be from the drawings because the bottom opening would be large enough to accommodate the preform. However the furnace 4 is clearly only a schematic representation of the furnace. When the reference does not disclose that the drawings are to scale and is silent as to dimensions, arguments based on measurement of the drawing features are of little value. See *Hockerson-Halberstadt, Inc. v. Avia Group Int’l*, 222 F. 3d 951, 956, 55 USPQ2d 1487, 1491 (Fed. Cir. 2000) (The disclosure gave no indication that the drawings were drawn to scale. “[I]t is well established that patent drawings do not define the precise

APPELLANTS' BRIEF ON APPEAL
UNDER 37 C.F.R. § 1.192
U.S. Appln. No.: 09/745,414

proportions of the elements and may not be relied on to show particular sizes if the specification is completely silent on the issue.”).

Most importantly (as can be seen from Orita 6192715 and Klop 4309201) one of ordinary skill routinely uses a small opening at the bottom of the furnace that would not permit the accommodation of something the size of a preform. One of ordinary skill would normally not use a furnace with such a large opening, because that would permit gases to readily enter/exit the furnace and make temperature/contamination control more difficult. One of ordinary skill reviewing the present application as originally claimed would not reasonable contemplate that Applicant possessed the idea of using a furnace and preform such that one can pass the preform “through” the furnace. It appears that the limitation was added simply to overcome the Nicholson invention which would not permit a preform to pass through the bottom furnace.

Office Action at page 3. In order to expedite prosecution and/or narrow issues for appeal, Applicants attempted to amend claim 11 to recite “for further conveying the preform body ~~through~~ within the furnace” in an after final amendment dated July 3, 2003. As mentioned above, the Examiner refused to enter the amendment because is allegedly raised new issues that would require further consideration and/or search.

Applicants believe that the Examiner’s refusal to enter the amendment was improper. The proposed amendment would have remedied the §112 rejections and at most, would have only required a cursory review. Applicants notes that further searching would not be necessary because the first search should have covered the invention as described and claimed, including the inventive concepts to which the claims appeared to be directed. See MPEP § 904.

In any event, the rejections of claims 11-15 in their current form are improper for at least the following reasons. The Examiner’s argument is based on the incorrect assumption that the claim requires that the preform pass outside the furnace. This is contrary to ordinary meanings of “through” and the teachings of the specification. The definition of “through” from the

APPELLANTS' BRIEF ON APPEAL
UNDER 37 C.F.R. § 1.192
U.S. Appln. No.: 09/745,414

American Heritage Dictionary of the English Language: Fourth Edition, 2000, is contained in an Appendix to this brief. Two of the meanings of "through" are:

2. Among or between; *in the midst of: a walk through the flowers.*
5. Here and there in; around: *a tour through France.*

The specification and drawings also fully support the limitation of the preform being conveyed through the furnace. For example, figure 2 shows the preform before it enters the furnace and figures 3 and 4 show the preform after it is conveyed past the inlet arrangement and is being conveyed through the furnace. Pages 7 and 8 of the specification also describe how the preform is lowered until it enters the airlock and then further lowered until it is at a position inside the cladding 5' of the furnace.

Conclusion

Appellants respectfully requests the members of the Board to reverse the rejection of all appealed claims and to find each of the claims allowable as defining subject matter which is not unpatentable under 35 U.S.C. §§112, 1st paragraph and 102.

The present Brief on Appeal is being filed in triplicate. Unless a check is submitted herewith for the fee required under 37 C.F.R. §1.192(a) and 1.17(c), please charge said fee to Deposit Account No. 19-4880.

APPELLANTS' BRIEF ON APPEAL
UNDER 37 C.F.R. § 1.192
U.S. Appl. No.: 09/745,414

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



Raja Saliba
Registration No.: 43,078

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE

23373

CUSTOMER NUMBER

Date: November 12, 2003

APPENDIX

CLAIMS 10-15 ON APPEAL:

Claim 10. An inlet arrangement for inserting a preform into a furnace for drawing fiber, comprising:

an inlet;

an outlet downstream of the inlet,

a first conveying path through the inlet arrangement extending from the inlet to the outlet, the first conveying path for conveying the preform body from and through the inlet to and through the outlet;

a first seal;

a closure member located downstream of the inlet and between the first seal and the outlet, the closure member selectively moveable between a closed position that closes and seals the first conveying path and an opened position that opens and unseals the first conveying path; and

an injector located downstream of the closure member and between the closure member and the outlet, the injector for injecting a gas into the first conveying path of the inlet arrangement.

Claim 11. An apparatus for drawing a fiber, comprising:

a preform body;

an inlet arrangement, comprising:

an inlet;

an outlet downstream of the inlet,

a first conveying path through the inlet arrangement extending from the inlet to the outlet, the first conveying path for conveying the preform body from and through the inlet to and through the outlet;

a first seal;

a closure member located downstream of the inlet and between the first seal and the outlet, the closure member selectively moveable between a closed position that closes and seals the first conveying path and an opened position that opens and unseals the first conveying path; and

an injector located downstream of the closure member and between the closure member and the outlet, the injector for injecting a gas into the first conveying path of the inlet arrangement; and

a furnace located downstream of the inlet arrangement and having a second conveying path aligned with the first conveying path for further conveying the preform body through the furnace; and

wherein the closure member, when in the closed position, seals off the injector and the furnace from the first seal.

Claim 12. The apparatus for drawing a fiber according to claim 11, wherein the preform is inserted in the first seal, so that the first seal, together with the preform, seal off from the inlet of the inlet arrangement a first portion of the first conveying path that is downstream of the first

: :

seal, so as to substantially prevent gas injected into the first conveying path by the injector from escaping outside the inlet arrangement from the inlet.

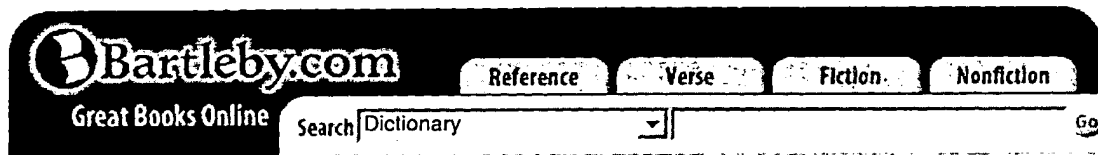
Claim 13. The apparatus for drawing a fiber according to claim 11, wherein the injector comprises first injector vents that direct gas in an upstream direction of the first conveying path toward the inlet and in a downstream direction of the first conveying path towards the outlet.

Claim 14. The apparatus for drawing a fiber according to claim 11, further comprising a second seal disposed between the closure member and the first seal, and wherein the preform is inserted in the second seal, so that the second seal, together with the preform, seal off from the inlet of the inlet arrangement a second portion of the first conveying path that is downstream of the second seal, so as to substantially prevent gas injected into the first conveying path by the injector below the second seal from escaping upstream past the second seal.

Claim 15. The apparatus for drawing a fiber according to claim 11, wherein the first seal comprises stacked graphite seals.



Ros
from
Com
lang
instr
price
lang
www.
books



Home Subjects Titles Authors Encyclopedia Dictionary Thesaurus Quotations English Usage

Reference > American Heritage® > Dictionary

< [throttlehold](#)

[through-composed](#) >

[CONTENTS](#) · [INDEX](#) · [ILLUSTRATIONS](#) · [BIBLIOGRAPHIC RECORD](#)

The American Heritage® Dictionary of the English Language: Fourth Edition. 2000.

through

PRONUNCIATION:  throo

PREPOSITION: 1. In one side and out the opposite or another side of: *went through the tunnel*. 2. Among or between; in the midst of: *a walk through the flowers*. 3. By way of: *climbed in through the window*. 4a. By the means or agency of: *bought the antique vase through a dealer*. b. Into and out of the handling, care, processing, modification, or consideration of: *Her application went through our office*. *Run the figures through the computer*. 5. Here and there in; around: *a tour through France*. 6. From the beginning to the end of: *stayed up through the night*. 7. At or to the end of; done or finished with, especially successfully: *We are through the initial testing period*. 8. Up to and including: *a play that runs through December*; *a volume that covers A through D*. 9. Past and without stopping for: *drove through a red light*. 10. Because of; on account of: *She succeeded through hard work*. *He declined the honor through modesty*.

ADVERB: 1. From one end or side to another or an opposite end or side: *opened the door and went through*. 2. From beginning to end; completely: *I read the article once through*. 3. Throughout the whole extent or thickness; thoroughly: *warmed the leftovers clear through*; *got soaked through in the rain*; *a letter that was shot through with the writer's personality*. 4. Over the total distance; all the way: *drove through to their final destination*. 5. To a conclusion or an accomplishment: *see a matter through*.

ADJECTIVE: 1. Allowing continuous passage; unobstructed: *a through street*. 2a. Affording transportation to a destination with few or no stops and no transfers: *a through bus*; *a through ticket*. b. Continuing on a highway

Ros
Lang
Save
lang
softw
Offe
www.

Pho
Is Yc
Rear
Try C
Onlin
Asse
www.

without exiting: *through traffic; through lanes*. **3.** Passing or extending from one end, side, or surface to another: *a through beam*. **4.** Having finished; at completion: *She was through with the project*. **5.** Having no further concern, dealings, or connection: *I'm through with him*. **6a.** Having no more use, value, or potential; washed-up: *That swimmer is through as an athlete*. **b.** Doomed to death or destruction.

IDIOM: **through and through** **1.** In every part; throughout: *wet through and through*. **2.** In every aspect; completely: *a success through and through*.

ETYMOLOGY: Middle English *thurh, through*, from Old English *thurh*. See *tere*-² in Appendix I.

The American Heritage® Dictionary of the English Language, Fourth Edition. Copyright © 2000 by Houghton Mifflin Company. Published by the Houghton Mifflin Company. All rights reserved.

[CONTENTS](#) · [INDEX](#) · [ILLUSTRATIONS](#) · [BIBLIOGRAPHIC RECORD](#)

< [throttlehold](#)

[through-composed](#) >

Search Amazon:



Click [here](#) to shop the [Bartleby Bookstore](#).

[Welcome](#) · [Press](#) · [Advertising](#) · [Linking](#) · [Terms of Use](#) · © 2003 [Bartleby.com](#)



Destination:

GO

[lowestfare.com](#)



PATENT APPLICATION

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re application of Docket No: Q62474

Carlos PEDRIDO, et al.

Appln. No.: 09/745,414 Group Art Unit: 1731

Confirmation No.: 9890 Examiner: John M. HOFFMAN

Filed: December 26, 2000

For: PREFORM INLET ARRANGEMENT FOR AN OPTICAL FIBER DRAWING
 FURNACE, A FURNACE PROVIDED WITH THAT KIND OF INLET
 ARRANGEMENT, AND A PREFORM EQUIPPED TO CO-OPERATE WITH THAT
 INLET ARRANGEMENT

APPELLANTS' BRIEF ON APPEAL UNDER 37 C.F.R. § 1.192

MAIL STOP APPEAL BRIEF - PATENTS

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In accordance with the provisions of 37 C.F.R. § 1.192, Appellants submit the following:

I. REAL PARTY IN INTEREST

The real party in interest is the Assignee, ALCATEL. An Assignment was filed in this application and recorded at reel 011674, frame 0082.

II. RELATED APPEALS AND INTERFERENCES

To the best of the undersigned's knowledge, there are no related appeals or interferences.

III. STATUS OF CLAIMS

This application was originally filed with claims 1-7. On February 25, 2003, claims 1 and 2 were amended and new claims 8-15 were added. Thus claims 1-15 are currently pending.

APPELLANTS' BRIEF ON APPEAL
UNDER 37 C.F.R. § 1.192
U.S. Appln. No.: 09/745,414

Claims 1-9 were allowed in an Office Action dated March 12, 2003 (Paper No. 10). Claims 10 through 15 were rejected and are under appeal.

Claim 10 stands finally rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Nicholson et al. (U.S. Patent No. 5,713,979).

Claims 11-15 stand finally rejected under 35 U.S.C. § 112, first paragraph as allegedly containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the art that the inventors, at the time the application was filed, had possession of the claimed invention.

IV. STATUS OF AMENDMENTS

An Amendment Under 37 C.F.R. § 1.116 was filed on July 3, 2003. The Amendment made a minor change to claim 11 to address the 35 U.S.C. § 112 rejection. However, in the Advisory Action dated July 16, 2003, the Examiner refused to enter the proposed amendment because it allegedly raised new issues that would require further consideration and/or search and it was not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal. As discussed below Applicants believe that the Examiner's refusal to enter the Amendment was improper.

V. SUMMARY OF THE INVENTION

The claimed invention relates to a preform inlet arrangement for an optical fiber drawing furnace and to a furnace with that kind of arrangement. Specification, p. 1.

The production of optical fibers by drawing a heated preform in a furnace necessarily involves phases during which production is stopped for one preform to be replaced by another.

APPELLANTS' BRIEF ON APPEAL
UNDER 37 C.F.R. § 1.192
U.S. Appln. No.: 09/745,414

During the fiber drawing phase, the furnace is filled with inert gas. However, when one fiber is replaced with another, the surrounding air can infiltrate the furnace, which can cause damage to the graphite elements in the furnace. *Id.*

The claimed invention prevents air from infiltrating the furnace by providing an airlock 13 which closes and seals the top of the furnace in the absence of a preform and during preform insertion or removal and preferably maintains positive internal pressure at the furnace inlet. *Id.*, p. 5.

Figures 2, 3 and 4 show an embodiment of a drawing furnace equipped with this kind of airlock, with a vertical preform 3' shown in a different position in each of the figures. The figures show drawing furnace 1' with an enclosure 4' and cladding 5'. Injector 6' is mounted above the enclosure 4' at the level of the preform inlet opening to the enclosure, which it surrounds. *Id.*, p. 5-6.

In a preferred embodiment, injector 6' includes vents 14 and 15 inclined towards the preform and some of which point downwards towards the furnace and others of which point upwards. *Id.*, p. 6.

A closure member 16 is positioned above injector 6' and closes and seals the top of the furnace in the absence of a preform. It has two moving closure parts which cover the axial opening for the preform at the center of injector 6' when they are moved into contact with each other. The opening in closure member 16 adapted to allow downward movement of a preform into the furnace is formed by moving apart its two moving closure parts. This is effected by moving both parts simultaneously, for example, and employs displacement means of the usual

APPELLANTS' BRIEF ON APPEAL
UNDER 37 C.F.R. § 1.192
U.S. Appln. No.: 09/745,414

kind; the same applies to moving the moving parts towards each other on closing. The displacement means, which are not shown here, are of the mechanical, electrical, pneumatic or hydraulic type, for example. *Id.*, p. 5.

An airlock chamber is provided above closure member 16 and is defined in the longitudinal direction by two stages of seals 17A and 17B through which the preform body slides when it moves vertically. The seals are stacked cylindrical graphite seals and are held by seal supports 18A and 18B. The seal supports are fastened to a support structure, not shown, of the preform inlet arrangement that they form in conjunction with the seals, the closure member and the injector in this embodiment. The seals 17A, 17B are also cooled, for example by conduction, to prevent premature deterioration. *Id.*

The two stages of seals are separated by a distance chosen so that the airlock function provided by seals 17A and 17B in conjunction with closure member 16 is always fulfilled. This function involves the participation of at least one of the stages of seals as soon as a preform is inserted into the inlet arrangement of which the seals form part and for as long as the length of the preform body is greater than or at least equal to a maximum drawing limit for the preform corresponding to a particular minimum length "l_{min}." In this embodiment, a connecting sleeve 19 of particular length is placed between the seal supports 18A and 18B. The length of the sleeve depends on the minimum preform body length. Therefore, in practice on the drawing end cone that remains at the drawing end after the maximum processing of a preform in the drawing furnace. *Id.*, p. 6-7.

VI. ISSUES

The issues on appeal are:

(1) whether claim 10 was improperly finally rejected under 35 U.S.C. § 102(b) as being anticipated by Nicholson et al. (U.S. Patent No. 5,713,979); and

(2) whether claims 11-15 were improperly finally rejected under 35 U.S.C. § 112, first paragraph.

VII. GROUPING OF CLAIMS

For purposes of this appeal only the claims are grouped as follows:

With respect to the rejection under 35 U.S.C. §102(b), claim 10 stands alone.

With respect to the rejections under 35 U.S.C. §112, 1st paragraph, claims 11-15 stand and fall together.

VIII. ARGUMENTS

Rejection of Claim 10

Appellants respectfully request the members of the Board to reverse the aforementioned rejection under 35 U.S.C. § 102(a) because the cited reference fails to disclose or suggest all of the claim limitations.

In rejecting claim 10 in view of Nicholson, the Examiner asserts that:

The invention is shown on figure 1. Everything above (and including feature 21) comprises the "arrangement". The top of 8 is the inlet. The bottom of 21 is the outlet. The first conveying path is the path from the inlet to the outlet. Feature 8 has the seal (col. 8, line 10). 11 and/or 10 comprise the closure member. The injector is discussed as per the paragraph spanning cols. 8-9. It is inherent that some injector is needed to introduce the process gas into furnace B.

Office Action at pages 2 and 3. In the Advisory Action, the Examiner added that:

APPELLANTS' BRIEF ON APPEAL
UNDER 37 C.F.R. § 1.192
U.S. Appln. No.: 09/745,414

The reference indicates that other arrangements are “clearly” possible. This indicates that one of ordinary skill would “clearly” know of other arrangements. The clearest mode of introducing “inert and/or process gas into furnace B” is to have something that feeds directly into furnace B. Nicholson discloses that 25 is a representation of just one of the possibilities. Furthermore, this pipe would be for introducing gas into “C” or into ‘C and B.’ This does not cover the case where the means just introduces gas into B – which Nicholson explicitly provides for by indicating B “or” C (see the “and/or” of col. 8, line 64). The most clear way would be the equivalent structure of 25: a pipe that feeds directly into B. As to the argument that the invention is for drawing a fiber – such is an intended use limitation and imparts substantially no structural limitations onto the claim. There is no indication as to why Nicholson’s arrangement can’t be used to draw fibers.

Advisory Action at page 2. Applicants respectfully disagree.

Claim 10 requires an inlet arrangement that includes the following elements in a downstream sequence:

- a first seal;
- a closure member located downstream of the inlet and between the first seal and the outlet, the closure member selectively moveable between a closed position that closes and seals the first conveying path and an opened position that opens and unseals the first conveying path; and
- an injector located downstream of the closure member and between the closure member and the outlet

At a minimum, Nicholson et al. does not teach or suggest an inlet arrangement which includes the first seal, a closure member and an injector, with the first seal and the closure member disposed above the injector.

APPELLANTS' BRIEF ON APPEAL
UNDER 37 C.F.R. § 1.192
U.S. Appln. No.: 09/745,414

The Examiner takes the position that Nicholson et al. *inherently* discloses an injector “as per the paragraph spanning cols. 8-9,” because “it is inherent that some injector is needed to introduce the process gas into furnace B.” Office Action at pages 2-3. Nicholson et al. states:

Means may be provided to introduce inert and/or process gas into furnace B, and/or to chamber C, or alternatively to connect these components to the vacuum system. ***These possibilities are represented schematically in FIG. 1 by a single inlet/exit pipe 25, fitted with a valve 26, but alternative pipework arrangements, not shown, are clearly possible.*** Appropriate water-cooling of chamber C is provided, for example by a cooling pipe 27.

Nicholson et al. at column 8, line 66 to column 9, line 6 (emphasis added).

Even if the Examiner now takes the position that Nicholson et al. discloses an injector downstream of the closure member, it is clear that such an alleged injector is not disclosed as being part of the *inlet arrangement* as required by claim 10. Rather, as quoted above, Nicholson et al. *explicitly* discloses that the inlet/exit pipe 25 is at the downstream end of the Chamber C, and therefore, not part of the alleged inlet arrangement. There is no teaching or suggestion to include such an inlet/exit pipe *as part of an inlet arrangement*, which the Examiner alleges to be everything upstream of metal flange 21. While the reference states that “alternative pipework arrangements, not shown, are clearly possible,” it give absolutely no guidance where and how to include the alternative arrangement, and is, therefore, no more than an unguided invitation to experiment. Indeed, to the extent that the reference discloses the single inlet/exit pipe 25, fitted with a valve 26, at the *end* of chamber C so as not to interrupt the insulation and uniformity of this chamber, one skilled in the art would likely be motivated to maintain this arrangement or a

APPELLANTS' BRIEF ON APPEAL
UNDER 37 C.F.R. § 1.192
U.S. Appln. No.: 09/745,414

substantially similar arrangement. Therefore, Nicholson et al. cannot be relied upon to anticipate the invention recited in claim 10.

Furthermore, the present invention as recited in claim 10 is for “drawing a fiber,” whereas Nicholson et al. deals mainly with sintering a preform (see abstract and column 10, line 20, and titles of examples 1 to 4). The Examiner asserts that there is no indication as to why Nicholson’s arrangement can’t be used to draw fibers. Applicants respectfully disagree. In fact, none of the embodiments disclose furnaces that have openings from which a drawn fiber could exit.

Rejection of Claims 11-15

Appellants respectfully request the members of the Board to reverse the aforementioned rejections under 35 U.S.C. § 112, 1st paragraph because subject matter of the claims are described in the specification in such a way as to reasonably convey to one skilled in the art that the inventor, at the time the application was filed, had possession of the claimed invention.

In rejecting claims 11-15 the Examiner asserts that:

Claim 11 contains the limitation of “further conveying the preform through the furnace” (4th to last line). Applicant’s response does not give any indication of where there is any support for the limitation. Examiner read through the specification and could not find any support. The only possible support would be from the drawings because the bottom opening would be large enough to accommodate the preform. However the furnace 4 is clearly only a schematic representation of the furnace. When the reference does not disclose that the drawings are to scale and is silent as to dimensions, arguments based on measurement of the drawing features are of little value. See *Hockerson-Halberstadt, Inc. v. Avia Group Int’l*, 222 F. 3d 951, 956, 55 USPQ2d 1487, 1491 (Fed. Cir. 2000) (The disclosure gave no indication that the drawings were drawn to scale. “[I]t is well established that patent drawings do not define the precise

APPELLANTS' BRIEF ON APPEAL
UNDER 37 C.F.R. § 1.192
U.S. Appln. No.: 09/745,414

proportions of the elements and may not be relied on to show particular sizes if the specification is completely silent on the issue.”).

Most importantly (as can be seen from Orita 6192715 and Klop 4309201) one of ordinary skill routinely uses a small opening at the bottom of the furnace that would not permit the accommodation of something the size of a preform. One of ordinary skill would normally not use a furnace with such a large opening, because that would permit gases to readily enter/exit the furnace and make temperature/contamination control more difficult. One of ordinary skill reviewing the present application as originally claimed would not reasonable contemplate that Applicant possessed the idea of using a furnace and preform such that one can pass the preform “through” the furnace. It appears that the limitation was added simply to overcome the Nicholson invention which would not permit a preform to pass through the bottom furnace.

Office Action at page 3. In order to expedite prosecution and/or narrow issues for appeal, Applicants attempted to amend claim 11 to recite “for further conveying the preform body through within the furnace” in an after final amendment dated July 3, 2003. As mentioned above, the Examiner refused to enter the amendment because is allegedly raised new issues that would require further consideration and/or search.

Applicants believe that the Examiner’s refusal to enter the amendment was improper. The proposed amendment would have remedied the §112 rejections and at most, would have only required a cursory review. Applicants notes that further searching would not be necessary because the first search should have covered the invention as described and claimed, including the inventive concepts to which the claims appeared to be directed. See MPEP § 904.

In any event, the rejections of claims 11-15 in their current form are improper for at least the following reasons. The Examiner’s argument is based on the incorrect assumption that the claim requires that the preform pass outside the furnace. This is contrary to ordinary meanings of “through” and the teachings of the specification. The definition of “through” from the

APPELLANTS' BRIEF ON APPEAL
UNDER 37 C.F.R. § 1.192
U.S. Appln. No.: 09/745,414

American Heritage Dictionary of the English Language: Fourth Edition, 2000, is contained in an Appendix to this brief. Two of the meanings of "through" are:

2. Among or between; *in the midst of: a walk through the flowers.*
5. Here and there in; around: *a tour through France.*

The specification and drawings also fully support the limitation of the preform being conveyed through the furnace. For example, figure 2 shows the preform before it enters the furnace and figures 3 and 4 show the preform after it is conveyed past the inlet arrangement and is being conveyed through the furnace. Pages 7 and 8 of the specification also describe how the preform is lowered until it enters the airlock and then further lowered until it is at a position inside the cladding 5' of the furnace.

Conclusion

Appellants respectfully requests the members of the Board to reverse the rejection of all appealed claims and to find each of the claims allowable as defining subject matter which is not unpatentable under 35 U.S.C. §§112, 1st paragraph and 102.

The present Brief on Appeal is being filed in triplicate. Unless a check is submitted herewith for the fee required under 37 C.F.R. §1.192(a) and 1.17(c), please charge said fee to Deposit Account No. 19-4880.

APPELLANTS' BRIEF ON APPEAL
UNDER 37 C.F.R. § 1.192
U.S. Appln. No.: 09/745,414

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



Raja Saliba
Registration No.: 43,078

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE

23373

CUSTOMER NUMBER

Date: November 12, 2003

APPENDIX

CLAIMS 10-15 ON APPEAL:

Claim 10. An inlet arrangement for inserting a preform into a furnace for drawing fiber, comprising:

an inlet;

an outlet downstream of the inlet,

a first conveying path through the inlet arrangement extending from the inlet to the outlet, the first conveying path for conveying the preform body from and through the inlet to and through the outlet;

a first seal;

a closure member located downstream of the inlet and between the first seal and the outlet, the closure member selectively moveable between a closed position that closes and seals the first conveying path and an opened position that opens and unseals the first conveying path; and

an injector located downstream of the closure member and between the closure member and the outlet, the injector for injecting a gas into the first conveying path of the inlet arrangement.

Claim 11. An apparatus for drawing a fiber, comprising:

a preform body;

an inlet arrangement, comprising:

an inlet;

: :

an outlet downstream of the inlet,

a first conveying path through the inlet arrangement extending from the inlet to the outlet, the first conveying path for conveying the preform body from and through the inlet to and through the outlet;

a first seal;

a closure member located downstream of the inlet and between the first seal and the outlet, the closure member selectively moveable between a closed position that closes and seals the first conveying path and an opened position that opens and unseals the first conveying path; and

an injector located downstream of the closure member and between the closure member and the outlet, the injector for injecting a gas into the first conveying path of the inlet arrangement; and

a furnace located downstream of the inlet arrangement and having a second conveying path aligned with the first conveying path for further conveying the preform body through the furnace; and

wherein the closure member, when in the closed position, seals off the injector and the furnace from the first seal.

Claim 12. The apparatus for drawing a fiber according to claim 11, wherein the preform is inserted in the first seal, so that the first seal, together with the preform, seal off from the inlet of the inlet arrangement a first portion of the first conveying path that is downstream of the first

seal, so as to substantially prevent gas injected into the first conveying path by the injector from escaping outside the inlet arrangement from the inlet.

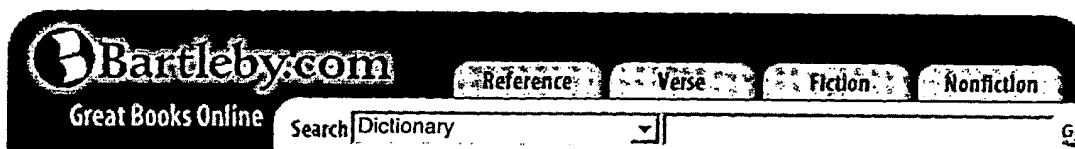
Claim 13. The apparatus for drawing a fiber according to claim 11, wherein the injector comprises first injector vents that direct gas in an upstream direction of the first conveying path toward the inlet and in a downstream direction of the first conveying path towards the outlet.

Claim 14. The apparatus for drawing a fiber according to claim 11, further comprising a second seal disposed between the closure member and the first seal, and wherein the preform is inserted in the second seal, so that the second seal, together with the preform, seal off from the inlet of the inlet arrangement a second portion of the first conveying path that is downstream of the second seal, so as to substantially prevent gas injected into the first conveying path by the injector below the second seal from escaping upstream past the second seal.

Claim 15. The apparatus for drawing a fiber according to claim 11, wherein the first seal comprises stacked graphite seals.



Ros:
from
Com:
lang:
instr:
price:
lang:
www.i
books



Home Subjects Titles Authors Encyclopedia Dictionary Thesaurus Quotations English Usage
Reference > American Heritage® > Dictionary
< [throttlehold](#) [through-composed](#) >
CONTENTS · INDEX · ILLUSTRATIONS · BIBLIOGRAPHIC RECORD

Lang:
Soft
Buy
Soft
of Le
Who
www.

The American Heritage® Dictionary of the English Language: Fourth Edition. 2000.

through

PRONUNCIATION: throo

Ros:
Lang:
Save
lang:
softv
Offe:
www.i

PREPOSITION: 1. In one side and out the opposite or another side of: *went through the tunnel*. 2. Among or between; in the midst of: *a walk through the flowers*. 3. By way of: *climbed in through the window*. 4a. By the means or agency of: *bought the antique vase through a dealer*. b. Into and out of the handling, care, processing, modification, or consideration of: *Her application went through our office*. *Run the figures through the computer*. 5. Here and there in; around: *a tour through France*. 6. From the beginning to the end of: *stayed up through the night*. 7. At or to the end of; done or finished with, especially successfully: *We are through the initial testing period*. 8. Up to and including: *a play that runs through December*; *a volume that covers A through D*. 9. Past and without stopping for: *drove through a red light*. 10. Because of; on account of: *She succeeded through hard work*. *He declined the honor through modesty*.

ADVERB: 1. From one end or side to another or an opposite end or side: *opened the door and went through*. 2. From beginning to end; completely: *I read the article once through*. 3. Throughout the whole extent or thickness; thoroughly: *warmed the leftovers clear through*; *got soaked through in the rain*; *a letter that was shot through with the writer's personality*. 4. Over the total distance; all the way: *drove through to their final destination*. 5. To a conclusion or an accomplishment: *see a matter through*.

ADJECTIVE: 1. Allowing continuous passage; unobstructed: *a through street*. 2a. Affording transportation to a destination with few or no stops and no transfers: *a through bus*; *a through ticket*. b. Continuing on a highway

Pho:
Is Yc
Rea:
Try (
Onlin
ASSE
www.i

without exiting: *through traffic; through lanes*. 3. Passing or extending from one end, side, or surface to another: *a through beam*. 4. Having finished; at completion: *She was through with the project*. 5. Having no further concern, dealings, or connection: *I'm through with him*. 6a. Having no more use, value, or potential; washed-up: *That swimmer is through as an athlete*. b. Doomed to death or destruction.

IDIOM: **through and through** 1. In every part; throughout: *wet through and through*. 2. In every aspect; completely: *a success through and through*.

ETYMOLOGY: Middle English *thurh*, *through*, from Old English *thurh*. See *tere*-² in Appendix I.

The American Heritage® Dictionary of the English Language, Fourth Edition. Copyright © 2000 by Houghton Mifflin Company. Published by the Houghton Mifflin Company. All rights reserved.

[CONTENTS](#) · [INDEX](#) · [ILLUSTRATIONS](#) · [BIBLIOGRAPHIC RECORD](#)

< [throttlehold](#)

[through-composed](#) >

Search Amazon:



Click [here](#) to shop the [Bartleby Bookstore](#).

[Welcome](#) · [Press](#) · [Advertising](#) · [Linking](#) · [Terms of Use](#) · © 2003 Bartleby.com

